

IN THE CLAIMS

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (New) A method of drawing a wire having a first diameter to a fiber having a second diameter, comprising the steps of:

feeding the wire into an entry orifice of a chamber at a first linear velocity;

introducing a pressurized fluid atmosphere into the chamber for enveloping the wire;

heating a region of the wire within an interior region of the chamber with a laser;

drawing the wire at second linear velocity from an exit orifice of the chamber for producing the fiber having a reduced second diameter;

discharging the pressurized fluid atmosphere from the chamber through the entry orifice and the exit orifices for providing an entry and an exit fluid bearing for the wire and the fiber; and

cooling the fiber with the pressurized fluid atmosphere discharging from the exit orifice.

26. (New) A method of drawing a precious metal wire having a first diameter to a precious metal fiber having a second diameter, comprising the steps of:

feeding the precious metal wire into an entry orifice of a chamber at a first linear velocity;

introducing a pressurized fluid atmosphere into the chamber for enveloping the precious metal wire;

heating a region of the precious metal wire within an interior region of the chamber with a laser;
drawing the precious metal wire at second linear velocity from an exit orifice of the chamber for producing the precious metal fiber having a reduced second diameter;
discharging the pressurized fluid atmosphere from the chamber through the entry orifice and the exit orifices for providing an entry and an exit fluid bearing for the precious metal wire and the precious metal fiber; and
cooling the precious metal fiber within the exit orifice with the pressurized fluid atmosphere discharging from the exit orifice.

27. (New) A method of drawing a gold wire as set forth in claim 26, wherein the step of feeding the gold wire includes feeding the gold wire having the first diameter of approximately one hundred microns; and
the step of drawing the gold wire includes drawing the gold wire to have the second diameter of approximately twenty-five microns.

28. (New) A method of drawing a composite wire having an inner wire component and outer wire component defining a first diameter to a metallic fiber alloy having a second diameter, comprising the steps of:
feeding the composite wire into an entry orifice of a chamber at a first linear velocity;
introducing a pressurized fluid atmosphere into the chamber for enveloping the composite wire;
heating a region of the composite wire within an interior region of the chamber for softening

the composite wire and for diffusing the outer wire component into the inner wire component;

drawing the composite wire at second linear velocity from an exit orifice of the chamber for producing the metallic fiber alloy having a reduced second diameter;

discharging the pressurized fluid atmosphere from the chamber through the entry orifice and the exit orifices for providing an entry and an exit fluid bearing for the composite wire and the metallic fiber alloy; and

cooling the metallic fiber alloy with the pressurized fluid atmosphere discharging from the exit orifice.